

Application No.	200410082664.3
OA issuing date	March 10, 2006
OA due date	July 25, 2006
Reference documents	JP8-136841A, US5774248A, JP2000-98285A JP2000-105347A, CN1247991A, JP11-242170A
Objection Reasons	1. Claims 1, 9-11 and 15 do not possess the novelty required under Article 22, paragraph 2 of the Patent Law of China. 2. Claims 2-8, 12-14, 16 and 17 do not involve the inventive step required under Article 22, paragraph 3 of the Patent Law of China.

## TEXT OF THE FIRST OFFICE ACTION

1. The independent Claim 1 defines a multibeam light source unit. The reference D1 (JP8-136841A) discloses a light source unit used for laser scanning apparatus (refer to columns 3-4 of the description, Figs. 1 and 5 of the D1), comprising: a laser diode (see reference sign 4 in the D1) for emitting a plurality of laser beams; a light source pedestal (3) and a rotating member (2) for supporting the laser diode; a holder (1, equivalent to the fixing member in the present claim) for rotatably supporting the rotating member, wherein said rotating member is turned at an angle selected to align the positions of the plurality of laser beams and is then fixed to the holder.

It is seen that the D1 has disclosed all technical features of the independent Claim 1. The D1 and the claim belong to a same technical field, solve the same technical problem and achieve the same technical effect.

Therefore, the independent Claim 1 does not possess the novelty required under Article 22, paragraph 2 of the Patent Law of China.

2. The dependent Claim 2 defines the composition of the rotating member and the fixing member. The D1 (refer to column 3 of the description, Fig. 1) discloses that the light source pedestal (3) comprises a hole into which the laser diode is pressed and a hollow protrusion (2a, equivalent to the rotating boss in the present claim) as a center of rotation, and said holder comprises a first member having a groove (1a) into which the protrusion is inserted and a second member vertically extending from the first member.

Compared with Claim 2, the D1 further has a light source pedestal, by which component the laser diode can be adjusted along the plane perpendicular to the optical axis. However, the laser diode is pressed directly into the hole of the light source pedestal; once the light source pedestal is removed to eliminate said function, those skilled in the art are able to dispose the laser diode directly into the hole of the rotating member so as to obtain the technical solution of Claim 2, which is obvious

and does not cost any creative work.

Therefore, when Claim 1 it refers to does not possess novelty, Claim 2 does not involve the inventive step required under Article 22, paragraph 3 of the Patent Law of China.

3. The dependent Claim 3 further defines the connection between the rotating member and the fixing member. The D1 (refer to column 3 of the description, Fig. 1) discloses that the rotating member has been turned and adjusted to be fixed to the first member of the fixing member by screws, and the rotating member further comprises circular arc-shaped long holes into which said screws can be engaged.

As for the specific numbers of the screws and long holes, those skilled in the art are able to make selection according to the practical need, which does not cost any creative work.

Therefore, when Claim 2 it refers to does not involve inventive step, Claim 3 does not involve the inventive step required under Article 22, paragraph 3 of the Patent Law of China.

4. The dependent Claims 4 and 5 further define the gear sections of the rotating member. The reference D2 (US5774248A) discloses a laser scanning apparatus (refer to columns 8-9 of the description, Figs. 1, 3 and 4 of the D2), comprising: a laser unit (see reference sign 11, equivalent to the rotating member in the present claim) having laser diode installed therein, the laser unit having a gear section (23) on the outer circumference thereof to be engaged with a gear (26) of a motor (equivalent to the laser beam position alignment jig in the present claim) for turning the laser unit, thereby achieving the rotating operation of the laser unit and further achieving the adjustment of position of the laser diode.

It is seen that the D2 has provides the technical inspiration of disposing a gear engaging structure to accomplish rotating adjustment. Those skilled in the art are able to apply the feature to the light source unit of the D1 and to select the position of the gear on the rotating member according to practical need so as to obtain the technical solutions of Claims 4 and 5. Such application is obvious and does not cost any creative work.

Therefore, when claims they refer to do not involve inventive step, Claims 4 and 5 do not involve the inventive step required under Article 22, paragraph 3 of the Patent Law of China.

5. The dependent Claims 6-8 further define the collimating lens structure. The light source unit of the D1 further comprises: a driving circuit board (6) for driving the laser diode, said driving circuit board being connected to the rotating member through

the light source pedestal; a collimating lens (8) for transforming the laser beams emitted from the laser diode into parallel rays of light; a lens holder (7) for supporting the collimating lens, said lens holder being placed within the second member of the holder; the second member of the holder comprises a groove for receiving the lens holder and a plurality of holes at the both sides of the groove so that the second member can be fixed to an optical box (equivalent to the object in the present claim) by use of screws (equivalent to the fastening means in the present claim).

Claim 8 also defines that the groove is of semi-circular shape. Such specific shape of groove for receiving the lens holder can be selected by those skilled in the art according to practical need, which does not cost any creative work.

Therefore, when claims they refer to do not involve inventive step, Claims 6-8 do not involve the inventive step required under Article 22, paragraph 3 of the Patent Law of China.

6. The independent Claim 9 defines a laser scanning apparatus. The D1 (JP8-136841A) also discloses a laser scanning apparatus (refer to columns 3-4 of the description, Figs. 1 and 5 of the D1), comprising: a multibeam light source unit for emitting a plurality of laser beams; a scanning/image resulting unit for scanning the plurality of laser beams and forming an image on the scanning plane; an optical box (9, equivalent to the frame in the present claim) for supporting the light source unit and the scanning/image resulting unit; the light source unit comprising: a laser diode (see reference sign 4 in the D1) for emitting a plurality of laser beams; a driving circuit board (6) for driving the laser diode; a light source pedestal (3) and a rotating member (2) for supporting the laser diode and the driving circuit board; a holder (1, equivalent to the fixing member in the present claim) for rotatably supporting the rotating member; wherein said rotating member is turned at a predetermined angle to align the positions of the plurality of laser beams and is then fixed to the fixing member.

It is seen that the D1 has disclosed all technical features of the independent Claim 9. The D1 and the claim belong to a same technical field, solve the same technical problem and achieve the same technical effect.

Therefore, the independent Claim 9 does not possess the novelty required under Article 22, paragraph 2 of the Patent Law of China.

7. The additional technical features of the dependent Claims 10 and 11 have already been disclosed by the D1. The light source unit of the D1 is mounted and fixed onto the bottom of the optical box; said scanning/image resulting unit comprising: a polygon mirror (52) for scanning the plurality of laser beam projected from the light source unit; an image resulting lens (53) for imaging the laser beams scanned by the polygon mirror on the scanning plane; said laser scanning apparatus comprises: a

cylindrical lens for linearly concentrating the plurality of laser beams onto the reflection plane of the polygon mirror; and a synchronizing signal detection unit.

Therefore, when the claim they refer to does not possess novelty, Claims 10 and 11 do not possess the novelty required under Article 22, paragraph 2 of the Patent Law of China.

8. The additional technical features of the dependent Claims 12-14 are substantially same as those of the dependent Claims 2, 7 and 8.

Therefore, based on the same reasons (refer to the comments on Claims 2, 7, 8), when the claims they refer to do not possess novelty or inventive step, Claims 12-14 do not involve the inventive step required under Article 22, paragraph 3 of the Patent Law of China.

9. The independent Claim 15 defines a method for fabricating a multibeam laser scanning apparatus. The D1 (JP8-136841A) discloses a method for assembling a laser scanning apparatus (refer to columns 3-4 of the description, Figs. 1 and 5 of the D1), comprising: assembling a multibeam light source unit comprising a laser diode for emitting a plurality of laser beams; mounting the light source unit into an optical box (equivalent to the frame in the present claim); wherein said step of assembling the light source unit includes turning the laser diode at a predetermined angle to align the positions of the laser beams emitted from the laser diode.

It is seen that the D1 has disclosed all technical features of the independent Claim 15. The D1 and the claim belong to a same technical field, solve the same technical problem and achieve the same technical effect.

Therefore, the independent Claim 15 does not possess the novelty required under Article 22, paragraph 2 of the Patent Law of China.

10. The additional technical features in the dependent Claim 16 defining the rotating member and the fixing member are substantially same as the technical features in Claim 1; the additional technical features in the dependent Claims 16 and 17 defining the gear section and the alignment jig are substantially same as the additional technical features in Claim 4 (refer to the comments on Claims 1 and 4). In addition, Claim 17 also defines a fixing section of the laser beam position alignment jig. Since the alignment jig has to be fixed to the aligned object, those skilled in the art are able to dispose a fixing section on the alignment jig to be fixed to the fixing member of the light source according to the practical need, which is obvious and does not cost any creative work.

Therefore, when the claims they refer to do not possess novelty or inventive step, Claims 16 and 17 do not involve the inventive step required under Article 22,

paragraph 3 of the Patent Law of China.

11. In addition, the reference D3 (JP2000-98285A) and the reference D4 (JP2000-105347A) also disclose the multibeam light source unit for adjusting the position of the laser beams from the laser diode by use of rotating member, and laser scanning apparatus comprising said light source unit, and are also references affecting the novelty of Claims 1 and 9 of the present application.

The reference D5 (CN1247991A) and the reference D6 (JP11-242170A) also disclose the method of adjusting the rotating position of the laser diode and then mounting and fixing it into a scanning apparatus, and are also references affecting the novelty of Claim 15 of the present application.

Based on the above reasons, neither the independent claims nor the dependent claims possess novelty or involve inventive step, and the description does not disclose any other substantive contents to be granted. Therefore, even if the applicant rearranges the claims and/or further defines them according to the disclosure of the description, there is no prospect for the present application to be granted the right of patent.

If the applicant fails to state sufficient reasons within the designated time limit, or the application still does not comply with the provisions of the Patent Law of China or the Implementing Regulations thereof, the present application shall be rejected under Article 38 of the Patent Law of China according to Rule 53 (2) of the Implementing Regulations of the Patent Law of China.

LYU